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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,524	12/19/2003	Rajendra K. Shah	10833	1523
30956	7590	07/28/2005	EXAMINER	
CARRIER CORPORATION ONE CARRIER PLACE INTELLECTUAL PROPERTY DEPARTMENT FARMINGTON, CT 06034			JEFFERY, JOHN A	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/707,524

Applicant(s)

SHAH ET AL.

Examiner

John A. Jeffery

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 and 13-16 is/are allowed.
- 6) ☒ Claim(s) 8-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Drawing Objections*

The drawings are objected to because of the following informalities:

All Figures: Figure labels (Fig. 1, Fig. 2, etc.) must be added adjacent each figure.

Fig. 1: The figure must be enlarged and redrawn formally with straight lines for clarity.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 U.S.C. § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8 and 9 are rejected under 35 USC 102(b) as being anticipated by Lautner (US 2,647,198). The scope and breadth of the claim language did not preclude the citation of Lautner (US 2,647,198) who discloses a method of heating air comprising an electric heater with four heater sections 38, 40, 42, and 44 and fan. The speed of the fan's motor 18 is automatically controlled by the resistance of the electric heater that dictates the amount of current flowing through the fan motor. See Figs. 3 and 4 and col. 1, lines 18-26 and col. 2, line 11 – col. 3, line 10. The scope and breadth of the limitation "providing information from said electric heater to said fan of a capacity of said electric heater" did not preclude the distinct electric heater-to-fan wiring arrangement of Lautner (US 2,647,198) that inherently "provides information" from the heater to the fan of the heater's capacity in a particular arrangement as best seen in Figs. 3 or 4. That is, the heater inherently has a different capacity in the circuits of Fig. 3 and 4 and a corresponding change in fan speed (i.e., the fan is "controlled" based upon the heater's capacity). The "control" is the overall wiring arrangement that achieves a varying fan speed dictated by the heater's differing capacity.

***Joint Inventors -- Common Ownership Presumed***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligations under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103.

***Claim Rejections - 35 U.S.C. § 103(a)***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP11-52769 or WO93/19563. JP11-52769 discloses an electric heater adapted to be connected to a control device that alters the heating control parameters responsive to a detected heater identification characteristic via "identification signal" 4. The identification signal enables the controller to automatically distinguish between a low-

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capacity and higher-capacity heaters connected to the controller. See Fig. 1, abstracts, and computer English translation, at ¶¶ 0008 and 0015-0018.

Likewise, WO93/19563 discloses an electric heater adapted to be connected to a control device that alters the heating control parameters responsive to a detected heater identification characteristic via coded information (such as initial heater resistance, nominal allowable operating current and voltage values, etc.) on tab 69 on connector 25. See Fig. 4 and P. 7, line 12 – P. 8, line 3. Such an identification therefore enables the controller to automatically distinguish between a low-capacity and higher-capacity heaters connected to the controller.

The claim differs from JP11-52769 or WO93/19563 in calling for the electric heater to comprise multiple electric heating elements. Although JP11-52769 and WO93/19563 disclose only one electric heating element, it is nonetheless well settled that merely duplicating parts for a multiplied effect is an obvious modification within the level of one of ordinary skill in the art. St. Regis Paper Co. v. Bemis Co., Inc., 193 USPQ 8, 11 (7th Cir. 1977). Therefore, providing multiple heating elements for an increased heating effect in lieu of a single heating element would have been within the level of skilled artisans and is not a patentable feature of the invention.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP11-52769 or WO93/19563 in view of Bunn (US 5,170,042). The claims differ from the previously cited prior art in calling for an identifying resistor associated with different heater capacities. But incorporating unique resistors to automatically identify

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specific types of electric heating elements that are connected to heating element controllers is well known in the art. Bunn (US 5,170,042), for example, discloses providing unique identifying resistors 60, 62 to establish a voltage divider with fixed resistors. See col. 2, lines 5-19. Such an arrangement provides a convenient automatic identification scheme depending on the value of a resistor, thus enabling the use of simpler, less-expensive passive components such as resistors. In view of Bunn (US 5,170,042), it would have been obvious to one of ordinary skill in the art at the time of the invention to use resistors for the identification means in the previously described apparatus to provides a convenient automatic identification scheme depending on the value of a resistor, thus enabling the use of simpler, less-expensive passive components such as resistors.

Regarding claim 12, the scope and breadth of the term "wire harness" did not preclude any of the connecting structures of the cited prior art.

### ***Allowable Subject Matter***

Claims 1-7 and 13-16 are allowable over the art of record.

### ***Other Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant should (1) separately consider the art, and (2) consider the art together with the previously cited prior art for potential applicability under 35 U.S.C. §§ 102 or 103 when responding to this action. US 895, US 210, US 352, US



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495, US 085, US 971, US 544, JP 652 disclose apparatus with automatic electric heater identification capability to tailor control parameters to the identified heater. US 397, US 792 disclose air heaters relevant to the instant invention.

### ***Conclusion***

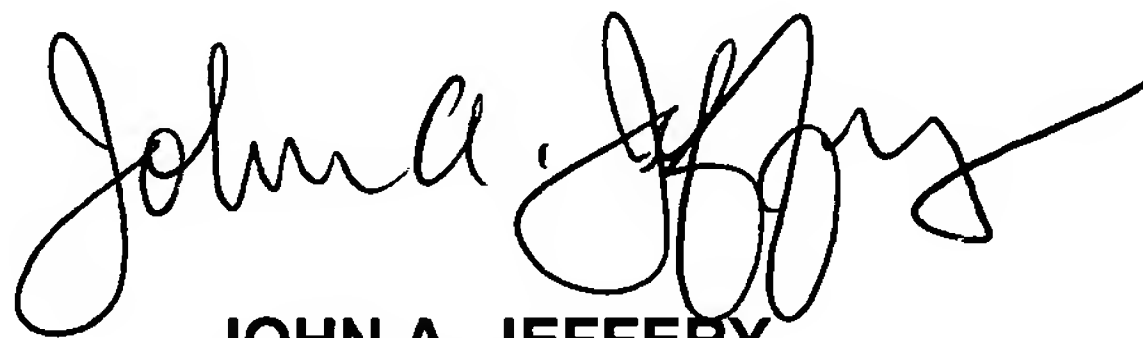
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Jeffery whose telephone number is (571) 272-4781. The examiner can normally be reached on Monday - Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans, can be reached on (571) 272-4777. All faxes should be sent to the centralized fax number at (571) 273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "John A. Jeffery", with a stylized, flowing script.

**JOHN A. JEFFERY  
PRIMARY EXAMINER**

**7/26/05**